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TAXONOMIC NOTES ON THE LAUGHING GULL.

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Noble demonstrated (Bull, Mus. Comp. Zool., 60, 1916:367) that the Laughing Gulls (Larus atricilla) of the West Indies were substantially smaller in size than those of the North American continent. From the synonymy of the species he selected for the continental population the name Atricilla megalopterus Bruch (Journ, für Orn. 3, 1855:287). Bruch's type specimen was said to have come from Peru, where the Laughing Gull is an uncommon species, appearing only under certain conditions of water temperature based on movements of the coastwise currents (Murphy, Oceanic Birds of South America, 1936:1072-1073). A Laughing Gull taken in Peru could have derived from either the continental or the Antillean population. Since there are a number of inconsistencies in Bruch's original description, it was felt that a reexamination of the type of Atricilla megalopterus was imperative. Unfortunately the identity of this specimen can never be settled. I was informed by Drs. Erwin Stresemann (letter of October 27, 1951) and Joachim Steinbacher (letter of November 20, 1951) that the entire bird collection of the museum at Mainz. including all of Bruch's types, was destroyed by an air raid on February 27, 1945. It thus becomes necessary to fall back on the principle of the first reviser and assume that Noble correctly fixed Bruch's name upon the continental population of the Laughing Gull.

Of the authors who have written of Larus atricilla since the appearance of Noble's paper, only Oberholser (La. Dept. Conserv. Bull. 28, 1938: 286) has supported the proposed subspecific division. Recognition of megalopterus was refused by Ridgway (U. S. Nat. Mus. Bull. 50, part VIII, 1919: 636, 641), Dwight (Bull. Am. Mus. Nat. Hist., 52, 1925: 266-267), Wetmore (Sci. Surv. Porto Rico and Virgin Is., 9, 1927: 378-379), Peters (Birds of the World, 2, 1934: 321), and Hellmayr and Conover (Field Mus. Nat. Hist. Zool. Ser. 13, part 1, No. 3, 1948: 275). None of these authors presented tables of comparative measurements to support their views. Wetmore and Swales (U. S. Nat. Mus. Bull. 155, 1931: 174) showed that wing measurements of West Indian specimens fell into two groups, with ranges of 293 to 305 mm. and 312 to 331 mm. respectively. Nevertheless these authors felt that "there is however no

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MEASUREMENTS IN MILLIMETERS OF ADULT MALE LAUGHING GULLS ('The writer's measurements combined with those of Noble. See text.)

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definite break between the two so that there is no clear support of the contention that there is a North American continental race distinguished by larger size, particularly since some of the large birds from the West Indies and the Bahamas are taken at dates when migrants should have retreated north to their nesting grounds." Their measurements as published were not segregated by sex or season.

For the present study, all of the Laughing Gulls in the collections of the American Museum of Natural History, the Chicago Natural History Museum, the United States National Museum, and Cornell University were examined. Measurements were made of adult birds in breeding plumage taken during the breeding season. It became apparent early in the study that there is a significant sexual difference in size in this species. Because of time limitations, attention was focussed thereafter on males. My measurements coincide remarkably well with those of Noble, whose 22 specimens did not include any of those I measured. The most significant measurements, in decreasing order of importance, were found to be those of the flattened wing, tarsus and tail. Frequency distributions of the combined measurements are given on the accompanying table, and show graphically the difference in size between these two populations. Although there is some overlap, an individual specimen is seldom intermediate in all measurements. Thus, the individual with the longest wing among the Antillean specimens examined measured 328 mm., which is within the limits of the continental race. However, this individual had a tarsus measuring only 44 mm., smaller than the smallest mainland bird but about average for the West Indian population.

In view of the measurement differences shown in the table, I am of the opinion that Noble and Oberholser were justified in their recognition of two subspecies of the Laughing Gull. For the reasons given in the first paragraph of this paper, the names of the two subspecies will stand as follows:

Larus atricilla atricilla Linnaeus, Syst. Nat., 10th ed., 1, 1758: 136 (Bahama Islands). Antillean Laughing Gull.

Larus atricilla megalopterus (Bruch). From Atricilla megalopterus Bruch, Journ. für Orn., 3, 1855: 287 (Peru). Northern Laughing Gull.